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Ceramics MONTHLY

Volume 8, Number 5

MAY • 1960

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On Our Cover: Terra Cotta sculpture, Indian Lion, 8 inches high, shown by Margot Kempe, at the recent annual exhibition, "The Craftsman Previews the 'Sixties." See the feature article "Show Time," on page 15.

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Letters

Share your thoughts with other CM readers—be it quip, query, comment, or advice. All letters must be signed, but names will be withheld on request. Address: The Editor, *Ceramics Monthly*, 4175 North High St., Columbus 14, Ohio.

SO MUCH TO LEARN

We teach a group of young children (3rd to 6th grades) in our community. Since none of us knew much about ceramics we have had to teach ourselves as well as any new adult volunteers, so your magazine is always in continuous use.

Those of us who started at the beginning have been working with children three and a half years—a short time, really. We have learned so much and improved, but also have so much to learn.

MRS. HARRY H. ALVERSON
Minneapolis, Minn.

MORE MODELING DESIRED

. . . We all look forward to your magazine the first days of each month. I would like to see more articles on hand modeling and designs suitable for glass bending. (How to cut, everybody can learn if he wants. An article on that is wasting time.) I have a studio and teach private lessons at the Art Institute.

MRS. T. GERNS
Canton, Ohio

TEXAS STORM

I just couldn't take it any longer! What has happened to your articles by Marc Bellaire????

Just after renewing my subscription—Bingo—no Marc Bellaire. Unless these articles appear again in *CERAMICS MONTHLY* I will not renew my subscription again. Marc Bellaire is "the only" down to earth ceramic artist . . .

I am not the only person in this area that will cancel their subscriptions when they are to be renewed if Marc Bellaire articles do not start pretty soon . . . if you need further proof, either just don't put the articles in or write me . . .

JEAN KINCAID
Hutto, Texas

OHIO COUNTERPOINT

I'd like to see more CM articles on stoneware pottery, highfire glazes, and design techniques. You may omit Marc Bellaire, but do continue articles by Carlton Ball, Karl Martz, and others of their calibre.

JOHNNIE GOULD
Celina, Ohio

A NOTE ON CONTENT

I think you are mistaken in your apparent attitude that it is necessary to debase the taste of beginners to carry them along. My personal experiences indicate to me that practically everyone responds to really good design—not always to the most sophisticated, perhaps—but almost always to work of charm and good workmanship. (Don't mistake me—by "charm" I do not mean ceramic lace, etc.—merely to a quality of line and proportion). It isn't just the animals and trinkets that depend for their appeal on external association rather than innate aesthetic value of line, proportion, etc. that annoy me. It's the page after page of crude, uninspired work that almost loses me.

My point is not that I mind "how-to" articles, or information for beginners. I like information articles myself, and don't expect all articles to be aimed just at me. But I do expect all articles to be an honest preparation for the next step—a step a little higher in real skill and information, and in taste. Some articles have been, but far too many are not.

WANDA JACKSON LEA
Celo, N. C.

KATHE BERL REPORTS

Could you do me a favor and somehow let the nice people who have asked me questions know that I will answer their letters as soon as I can? I haven't forgotten and I will sit down and do it soon.

KATHE BERL
New York, N. Y.

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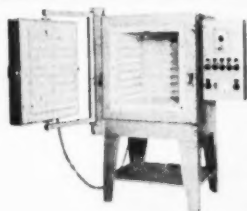
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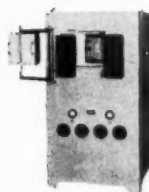
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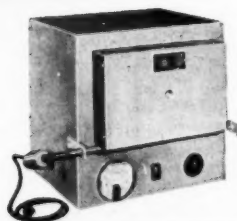
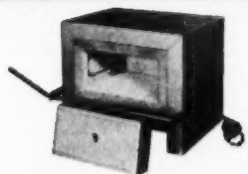
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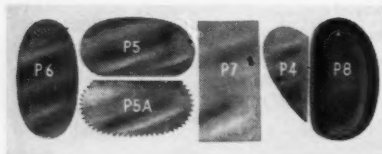
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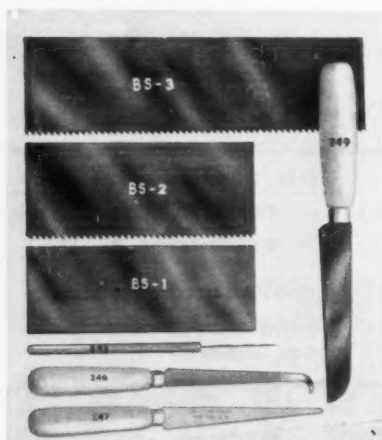
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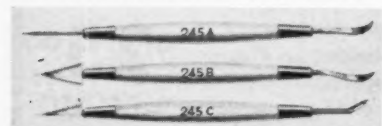


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CALIFORNIA, GUERNEVILLE

June 27—August 26

The Pond Farm Pottery offers 11th year of instruction in pottery techniques for both beginners and advanced students. Located in the hills 75 miles north of San Francisco—an area of beauty and unlimited outdoor activities as well as ceramic work. Write: Marguerite Wildenhain, Pond Farm Pottery.

CALIFORNIA, LOS ANGELES

June 20—July 29

Chouinard Art Institute, six-week course with Otto Heino. For bulletin write: Chouinard Art Institute, 743 S. Grand View St., Dept. CA, Los Angeles 57.

CALIFORNIA, LOS ANGELES

June 20—July 31

Department of Fine Arts at the University of Southern California, University Park, is giving pottery courses in the summer session. Beginning ceramics, advanced and graduate-level ceramics—all work will be in stoneware with emphasis on throwing, glazing and, decorative techniques. Instructor: F. Carlton Ball. Write: Fine Arts Dept., USC, University Park, Los Angeles 7.

CONNECTICUT, BROOKFIELD

June—August

The Brookfield Craft Center offers five summer events: June 4, David Holleman, one day seminar on ceramic mosaics; June 6—17, Dean Mullavey, workshop in ceramics; June 19—August 12, Helen Matthews, weekly classes in ceramics; July 18-29, Mary Kretsinger, workshop in metal and enamelwork; and August 15—26, Henry Gernhardt, ceramics. Write: Brookfield Craft Center.

CONNECTICUT, NEW CANAAN

June 27—August 22

Silvermine Guild School of Art plans an eight-week course in ceramics, sculpture, mosaics. Instructors: Tauno Kauppi, Jane Kauppi. Write: Silvermine Guild School of Art, New Canaan.

INDIANA, INDIANAPOLIS

June—August

Amaco summer workshops in ceramics and metal enameling are presented jointly by American Art Clay Company and the John Herron Art School during June, July, and August. For details, write: Ceramic Division, American Art Clay Co., Indianapolis 24.

MAINE, LIBERTY

June 27—August 27

Haystack Mountain School of Crafts will hold three 3-week sessions covering elements and characteristics of clay and glazes, hand-building and throwing. Instructors: Svea Kline, William Wyman, Henry Gernhardt, and Olin Russum. Some scholarship aid to qualifying candidates who apply before May 1. Write: Haystack Mountain School of Crafts.

MEXICO, OAXACA, MITLA, TAXCO, MEXICO CITY

July 31—August 12

Thirteen-day arts and crafts tours to points in Mexico. Write: T. H. Hewitt, 2413 Driscoll St., Houston 19, Tex.

NEW YORK, CHAUTAUQUA

July 5—August 12

Chautauqua Center of Syracuse University will hold two three-week sessions: July 5—22 and July 25—August 12. Instructor: James Achuff. Instruction will cover techniques and problems in pottery and ceramic sculpture. Write: Coordinator, Chautauqua Center of Syracuse University, 610 East Fayette, Syracuse 3, N. Y.

NEW YORK, NEW YORK

June 6—July 29

Craft Students League, West Side YWCA, offers in ceramics: coil and slab methods, casting, throwing on wheel, decorating, carving, modeling, underglazing, figurines; advanced class in decorative techniques, wheel work in earthenware and stoneware; and enameling. Instructors: Roberta Leber, Gertrud Englander, and Adda Husted-Andersen. For details, write: Helen T. Warner, Director, Craft Students League, 840 Eighth Ave., New York 19.

NEW YORK, WHITE PLAINS

June 27—August 5

Westchester Workshop, County Center, a six-weeks course. Instructors: Mildred Downey, Douglas Laughlin, Estelle Halper. Write: Westchester Workshop, County Center, White Plains.

NORTH CAROLINA, PENLAND

June 20—August 20

Penland School of Handicrafts gives three 3-week courses in ceramics and enameling. Instructors: Mrs. Harvey Chase, Anthony Haruch, Mrs. Rissie Sparks, and Oliver Blanchard. For catalog, write: Penland School of Handicrafts.

ONTARIO, TORONTO

July 2—August 26

Muskoka Workshop on Kabshe Lake offers opportunities in enameling and mosaics, ceramics, and clay sculpture. Instructors: Tutzi Haspel Seguin, Chizuko Shimano, and Leonhard Oesterle. For more information, write: Tutzi Haspel Seguin, 43 Camberwell Rd.

OREGON, SALEM

July 25—August 19

Salem Art Association presents a second summer art workshop. Hal Riegger, in charge of classes in clay, will also have an evening class for advanced students in glaze theory and the mixing of glazes. Write: Laneta King, Director of the Art Workshop, 600 Mission St.

PENNSYLVANIA, PHILADELPHIA

July 15—August 19

Philadelphia Museum College of Art—one day per week for six weeks. Ceramics instructor: Aurelius Renzetti. For more information, write: Office of Admissions, Philadelphia Museum College of Art, Philadelphia 2.

Continued on Page 38

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Ruth Davenport, born in Chicago, spent her childhood and early adult life in Portland, Oregon. She received her formal art education in the School of Fine Arts at the University of Oregon, and many of her early paintings were inspired by the grandeur of the Northwest. Her murals are in homes and public buildings throughout the country. Two eight-foot murals on canvas, one of the Chicago sky line, the other of Western mountains and cattle country, hang in the Director's Room of a Chicago meat-packing firm. Among others, Ruth has painted for Conrad Hilton, Henry Crown (owner of the Empire State Bldg.), for the owner of a Petroleum company, for a director of the Harding Museum, and for a member of the Illinois State Legislature.

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VIRGINIA, VIRGINIA BEACH July 7—11

*Fifth Annual Boardwalk Art Show, Virginia Beach Art Association. Open to original work in all media. Entry fee: \$5. No commission on sales. Artist or representative must be present. Jury: substantial cash prizes and honorable mention awards of art materials in nine categories. Write: Mrs. Gordon Atwill, Mayflower Apartments, Virginia Beach.

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bers may exhibit for a small fee. Only hobbyists eligible. Sterling silver prizes to Best of Show in ceramics and in porcelain. Ribbons in the junior division to children up to 16 years old. For further information, contact: Mrs. Raymond Steever, 3458 Chestnut Dr., Chamblee, Ga.

ILLINOIS, CHICAGO August 20—23

*National Pageant of Ceramics, Sherman Hotel. Classes, demonstrations, hobbyists' exhibit. Juried; cash awards, ribbons. For further information and entry blanks, write: E. Kane, P.O. Box 115, Wilmette, Ill.

NEW YORK, BUFFALO June 4—5

Eighth annual amateur competitive ceramic and sculpture exhibit, sponsored by the Western Chapter of the New York State Ceramic Association, Inc., in the main hall of the Buffalo Museum of Science. For additional information, write: Clara Rindfleisch, 3315 Bailey Ave., Buffalo 15, N. Y.

PENNSYLVANIA, PHILADELPHIA May 19—22

*Ceramic National Trade Show and Workshop, Sheraton Hotel. For details and entry blanks, write: Arthur E. Higgs, 414 N. Jefferson, Bay City, Mich.

WHERE TO GO

ALABAMA, BIRMINGHAM

May 1—31

"Contemporary American Glass," Smithsonian traveling exhibition, Birmingham Museum of Art.

CALIFORNIA, SAN FRANCISCO

May 20—June 14

"Forms From Israel," sponsored by The American Federation of Arts, at the San Francisco Museum of Art.

CANADA, MANITOBA, WINNIPEG

May 15—June 14

"British Artist-Craftsmen," Smithsonian traveling exhibition, at Winnipeg Art Gallery Association.

ILLINOIS, QUINCY

May 8—June 5

"Fulbright Designers," Smithsonian traveling exhibition, Quincy Art Club.

INDIANA, SOUTH BEND

May 8—29

The 8th Annual Michiana Regional Ceramics Exhibition, sponsored by South Bend Art Association, at Art Center.

INDIANA, WEST LAFAYETTE

May 1—31

"The Story of American Glass," Smithsonian traveling Exhibition, at Purdue University.

Continued on Page 35

NEW CONE 05-06 PORCELAIN

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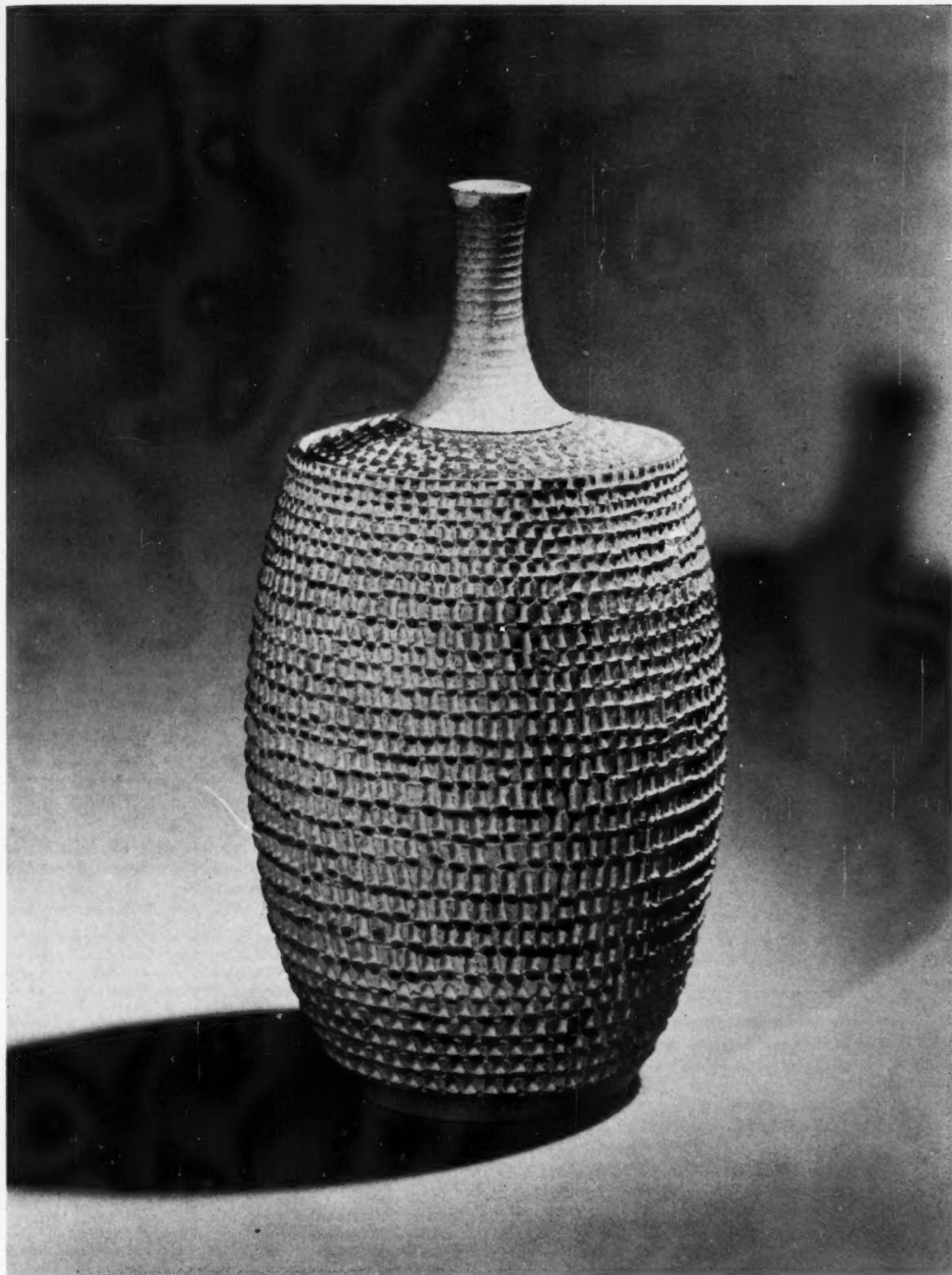
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CM's Pic of the Month: Textured jar with cover, by James Lovera, was one of the 30 ceramic pieces in his display at the M. H. de Young Memorial Museum, San Francisco, in March. It is of buff-colored clay, with a textured surface and glazed in white and rust; 10 inches high.

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Q *Answers to* questions

Conducted by the CM Technical Staff

Q Can anything be done to rectify a crazed glaze?—Sr. M.M., Omaha, Nebr.

If the glaze normally doesn't craze and this is an isolated case of crazing, one or more of several reasons may be responsible. In almost any case, the chance of correcting crazing on this piece would lie in refiring the piece. If the crazing developed because the pot was taken from the kiln while it was too hot, the remedy would be to refire and cool the kiln very slowly and not open it until quite cool. If the defect happened because the glaze wasn't fired to a high enough temperature, such an undeveloped glaze is weak and should be refired to the full maturing temperature required by the manufacturer. The fault may lie in the bisque being overfired or in the glaze being applied too heavily. Crazing doesn't lack causes, you see!

I have assumed that the glazes you are using are prepared commercial ones. If you are making your own glazes, the crazing can be corrected by adjusting either the glaze or body recipes, and you should consult a book on glaze literature for the many ways this can be done.

Q My glazes are not turning out as they should. Is it possible that I am bisque firing my greenware too hard?—P. K., Tampa, Fla.

Yes. If your greenware is fired too high, the bisque loses the porous quality that makes the application of glazes easier. A hard bisque makes it difficult to apply enough glaze thickness to get the desired effect with many glazes. You will find glazing easier if you bisque-fire your greenware several cones lower than your glaze firing temperature. Applying glazes on hard bisque can be made easier if the ware is heated slightly before glazing—the water in the glaze will dry out as soon as it hits the heated surface.

Q Why does Roman gold crackle? I have been decorating some bowls that I made from "art" clay, matured at cone 06. This gold does not crackle on hard porcelain china, so what is the cause?—N.B., Springfield, Mo.

It does not crackle on hard porcelain because it is compatible with the glaze. You should use unfluxed paste gold on your bowls.—Z.H.

Q Is it possible and/or advisable to use a bisqued piece as a model for a plastic mold? If so, what is the best separator to use and how should it be applied? I'd like to know also, if the separator can later be removed from the bisque model so that it might be glazed and fired?—L. V. M., Port Richey, Fla.

It is possible to use a bisque piece as a model for a mold. Mold soap, the usual separator, is not recommended, however; instead, use several coats of lacquer, brushed on and dried between coats. The separator can be removed later by refiring the piece of bisque ware to the regular biscuit temperature.—T.F.S.

Q I have heard that ground-up glass can be used to make a glaze. Is this true? How would I start experimenting with it?—T. W., Highland, Mich.

This is true. You can buy glass already ground, if you don't want to bother pulverizing glass bottles. Start your experiments by mixing the glass with kaolin in varying proportions and firing it at your clay temperature. The test which comes closest to being a good result is the one to continue experimenting with.—T.F.S.

All subscriber inquiries are given individual attention at CM; and out of the many received, those of general interest are selected for answer in this column. Direct your inquiries to the Questions Editor; please enclose a stamped self-addressed envelope.

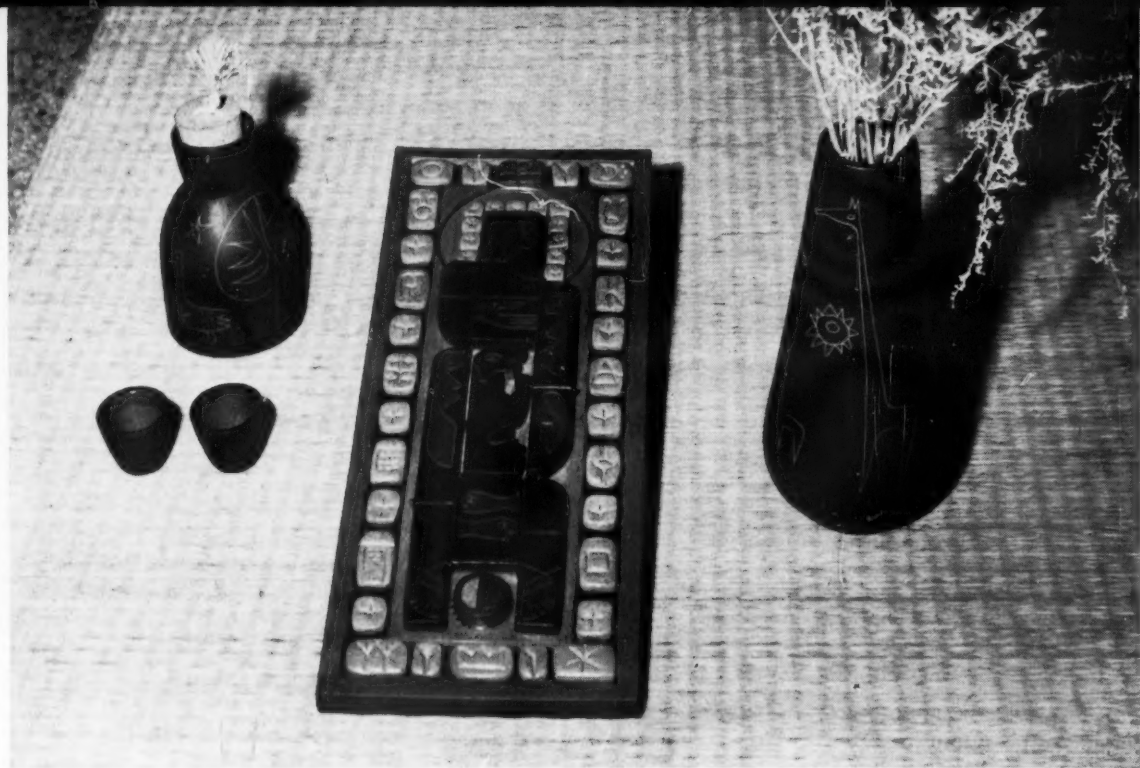


photo by JAMES PEARSON

NEW USES *for an* OLD TECHNIQUE

by MURIEL ANDERSON

ANCIENT ROMANS called it terra sigillata. This old decorating technique is enjoying a new popularity now. In reality an engobe, terra sigillata is made by mixing water with a natural iron-bearing clay to a thin consistency. The addition of approximately 0.3% of a deflocculant helps keep the clay particles in suspension. The mixture is mixed or milled, then allowed to settle for a few days, after which the clear surface water is drained off and discarded. The top portion of the remaining slip is then skimmed off and used. This is the terra sigillata or "sealed earth."

It is applied to green ware. Upon firing to a low temperature, it produces a satiny smooth, almost waterproof surface that is used in place of a glaze. Modern uses of the technique include the use of colorants to give added interest to terra sigillata.

I spotted several interesting examples of this technique when visiting the San Damiano Studios at Cardinal Stritch College in Milwaukee. I was especially excited about three works, shown here—a handsome wall plaque, a vase, and a little decanter set. I asked Irene Kilmurry, who produced these, to tell me a little about them.

"All three were made with the same process, using electrolyte of sodium hydroxide solution," she said. "The colorants are natural clay in Barnard and red Dalton."

The decanter itself is a two-piece mold and the cups a one-piece mold. They were cast in red clay and coated with Barnard terra sigillata in the green-ware stage (bone dry) and decoration was scratched through the terra sigillata into the original red clay with a pointed dowel rod. It creates the brown and red contrast and this

sgraffito decoration produces a very handsome effect. The line is in red clay. The design is a motif from nature—birds, trees, flowers—the simple type of decoration that Irene Kilmurry is noted for and which makes her work especially handsome. The decanter is finished off with a cork and raffia.

The vase demonstrates the same process—a two-piece mold with the same Barnard base and sgraffito line forming the animal and tree motif.

The plaque has a red Dalton clay base, rolled to a thickness of $\frac{3}{8}$ inch. The design is pressed on the surface of the clay and the outside shape is cut out—this particular one in three sections (four with the sun)—and then the sections are dried carefully. When bone dry, the terra sigillata is painted on (four coats); the dark sections are Barnard terra sigillata and the light sections are red Dalton terra sigillata. These are fired (one firing) and the piece is ready to be mounted. Decoration used with this is Egyptian paste—yellow and blue—using the Rudolph Koch early Christian symbols and the St. Francis Cantic to the Sun in various symbols. The section for the Egyptian paste was routed out to a depth of $\frac{1}{4}$ inch and stained dark to provide contrast to Egyptian paste. The wood frame is birch. A brass halo and a brass sun are used in the plaque. There are Egyptian paste inserts inside the sun. The plaque depicts St. Francis, and his love for birds, fish, and animals.

This old, old technique is worthy of your attention. Your experiments in terra-sigillata techniques can be very rewarding and may lead you to new creative vistas. ●



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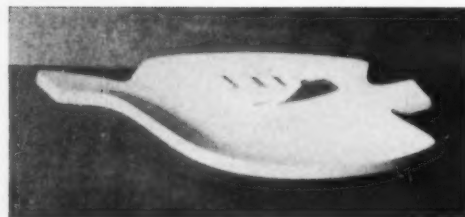
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SHOW TIME

COAST TO COAST

★ CRAFTSMEN PREVIEW THE '60's ... IN NEW YORK

THE SOCIETY OF ARTIST-CRAFTSMEN of New York held its annual show, "Craftsmen Preview the 'Sixties," at Cooper Union Museum for the Arts of Decoration, in New York City, in February.

The purpose of this exhibition was to encourage production of objects of sound design and craftsmanship and to increase awareness that beauty may exist in household articles in everyday use.

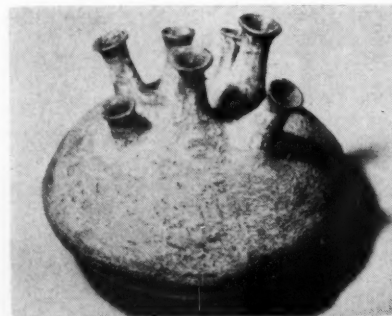
The jury—Calvin S. Hathaway, director of Cooper Union Museum, David Campbell, president of the American Craft Council, and Goran Holmquist, manager of Bonniers—made the initial selections of entries into the show.

Reported Roxa Wright, of the Society of Artist-Craftsmen of New York, "It proved to be a more rigidly selective show than any we have had, and very handsome in its total effect."

Outstanding ceramic pieces from this show are presented here. •



LOUIS LEAL, Planter, Wheel and Slab, stoneware, 24 inches high. Predominantly brown and black with a bit of blue and white.



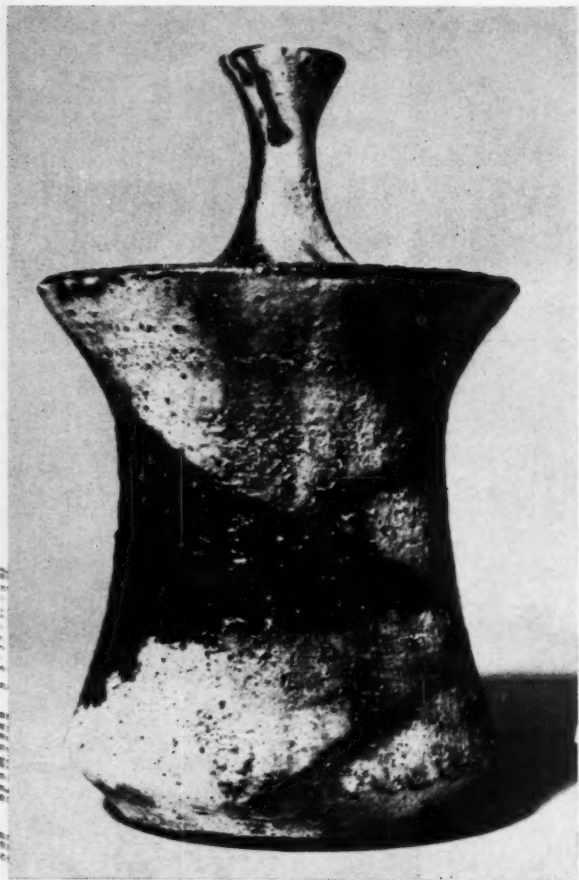
CHARLOTTE MOLTEN, Flower Holder, stoneware, gray-green glaze, 11½ inches high.



KREVOLIN AND CONSTANTINE, Double Flower Pot, with drainage hole in top section. Heavily grogged earthenware with gray bromide glaze, white engobe, 8 inches high.

Please Turn the Page

Continued . . .



ESTELLE HALPER, Herb Jar, stoneware, 14 inches high. Albany slip decorated with thick heavily-textured matt glaze in earth tones. From New York show.

MARGUERITE WILDENHAIN, Stoneware Bottle, wheel-thrown with spout added. The spout is dipped in thick white iron glaze. The body has thin matt brown glaze sharply scored by sgraffito. Twelve inches high.



FIBER-CLAY-METAL . . . MINNESOTA ★

THE SAINT PAUL Gallery 5th Biennial Fiber-Clay-Metal 1959 national craft competition is now on tour in Europe in the craft show which the United States Information Agency commissioned the Saint Paul, Minnesota, Gallery and School of Art to assemble.

Among the pots pictured here are three pieces of invited work not in competition: The Wildenhain bottle, the Scheier bowl, and the Littleton pitcher. These pieces are also included in the craft show on tour.

ALIX AND WARREN MACKENZIE Vase (left), finger-combed, stoneware

HARVEY K. LITTLETON, Stoneware Pitcher (center)

EDWIN AND MARY SCHEIER, Bowl, brown matt glaze, earthenware





HERBERT SANDERS, Coffee Urn,
unglazed exterior, on iron stand.



KENNETH JOHN DIERCK, Black Stoneware Head
with Singing Bird.

DESIGNER-CRAFTSMEN

OF CALIFORNIA ★

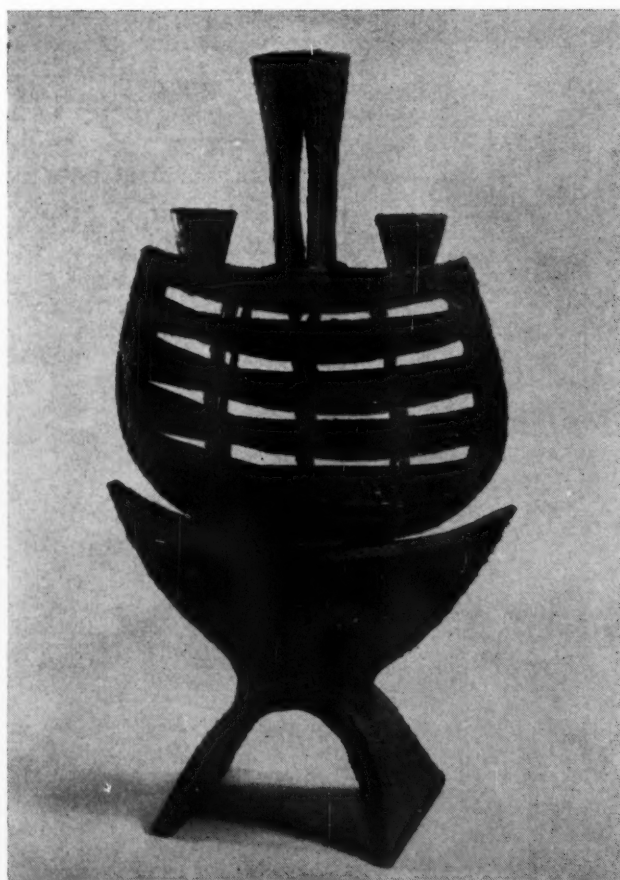
SHOW TIME COAST TO COAST

THE FIRST major museum exhibition of the work of a recently formed group of professional Northern California craftsmen was held at the San Francisco Museum of Art, Civic Center, at the turn of the year.

This group's charter defines as a professional: "A craftsman who designs and executes his own work and/or who may also teach and/or design for industry, and whose craft is an integral part of his life."

Some 300 new designs in ceramic, jewelry, enamels, and other media were shown from 48 member craftsmen. Ceramics had the largest representation in the show with more than 100 pieces from 15 potters. Three entries are pictured here.

MARY LINDHEIM, Cindered Form for Party Lights.



PORCELAIN for the HOBBYIST

With rules for the beginner
and a project to start on

by PHYLLIS CUSICK

PORCELAIN seems to be a frightening word to many hobby ceramists. They have heard all sorts of do's and can'ts and lack courage to make an actual start. If some simple rules are followed for working with porcelain, however, it can be a joy to work with and to fire.

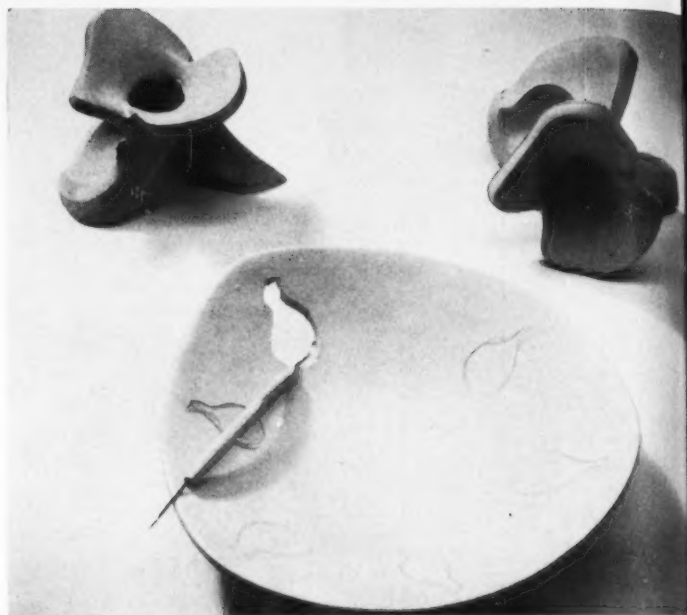
When I began to work with porcelain several years ago, I had to start the hard way and experiment with what could and couldn't be done. A simple set of rules would have saved me time. I hope that my experiences will be of some help to others starting out in this wonderful medium.

Porcelain can be defined as a hard, vitreous, very white clay body that either can be glazed or used in the bisque stage since it is waterproof. Porcelain is fired so hard that it doesn't easily chip and its glazes are less likely to craze; therefore, dinnerware made from this material is much desired. Now, to these features, add the translucent beauty of porcelain and the hobbyist can readily realize the advantages of learning to pour and fire porcelain.

Naturally, to fire porcelain you must have a kiln that will safely attain porcelain temperatures. For porcelain to be translucent and vitreous, it must actually reach a state of near-melting at maturity. In preparing for firing, be sure to use the cone recommended by the manufacturer since porcelain slips available to the hobbyist have a wide firing range—from cone 3 to cone 7. Some porcelain bodies have a much higher maturing point, but the average hobbyist doesn't use them.

CHOOSING THE MOLD

Choose a mold that is well balanced. Traditional or contemporary forms are optional so long as they are well designed for porcelain firing. Remember that porcelain shrinks considerably in drying and firing, so choose a piece large enough that shrinkage won't affect the fin-



SOLID cast porcelain pieces have just been removed from the molds. One of the candleholders will serve as a pedestal for the bowl. Design areas, related to the form of the candleholder, are cut in the bowl casting, while the bowl is leather hard. All mold marks must be removed carefully. The many edges of the candleholder will give a lot of experience in this work.

ished proportions unduly. Do not choose an unbalanced shape; although these might fire well at cone 06, porcelain temperatures distort such pieces. Avoid pieces with a small base and a large flaring top. These will tilt in firing unless they are perfectly balanced. Projections at odd angles also have a tendency to droop in firing, and heavy weight in a projecting part will cause sagging.

CASTING

Before using porcelain slip, clean the mold well removing all evidences of previous castings. Using mold powder which your supplier can furnish, coat the face of the mold thoroughly with a large soft brush. Then using an air gun or a clean soft brush, remove all powder from the mold. This procedure keeps the casting from sticking to the mold walls.

Casting porcelain slip presents some new problems which need careful consideration. This slip pours differently than the usual cone 06-05 slip, setting up in the molds very quickly. Hollow castings can and must be removed within minutes after draining since the rapid shrinkage may cause cracks to appear from pressure against the mold.

If the mold has no undercuts, the casting can safely be left in for an indeterminate period, since less pressure will be exerted upon it. Try to use this type of mold when pouring solid cast pieces.

Shrinkage is higher with porcelain slip than ordinary slip, being from 11 to 14 percent.

Remove thin castings from the mold carefully, as they bend and sag easily in this stage causing distortion which is not easily corrected and which may be further accentuated in firing. A drained casting must be handled carefully at all times since it is quite porous and soft. Do not bend the casting out of line when removing from the mold and attempt to reform it, as porcelain seems

to have a memory and often reverts in firing to the original distortion.

CLEANING GREENWARE

Porcelain greenware must be cleaned carefully as it breaks easily and must be handled with a delicate touch. Clean off the mold marks with a tool and, for final touches, wrap a small piece of net or lace around your finger and smooth the mold lines with a circular motion. Use water sparingly—greenware absorbs water readily and can literally melt in your hands. Another way to clean mold lines without using a sponge, is with a rather stiff bristled brush dipped in water.

FIRING GREENWARE

Hobbyists fire their porcelain in one of three ways: (1) Porcelain glazes may be applied to the greenware and the piece fired to maturity. (2) Bisque-fire to cone 06; then brush the glaze on the porous bisque and refire to maturity. (3) The average hobbyist fires the body to maturing temperature, sprays on the glaze and refires to a slightly lower porcelain temperature. However you fire and before you fire, clean the bottom surface of your piece and place it on a clean kiln shelf free of any glaze residue.

Never stilt work when firing porcelain! Stilts will become imbedded in the body permanently, since the porcelain reaches a near-melting stage and is soft and pliable at its maturing point.

One more word of caution: Exact firing is very important. Even a slight overfiring can cause the porcelain piece to sag or collapse.

MY PROJECT

I selected a solid-cast project as a good one for the beginner. It presents fewer problems and easier handling with less loss from distortion and breakage. The bowl is from a simple mold without bothersome undercut. I kept pouring slip and keeping the mold filled until a solid casting resulted.

The fruit-bowl shape, while tapered near the bottom, balances perfectly and presents no problems in removing from the mold or in firing.

The candleholders, one of which will be used as a lift for the bowl, also demonstrate good balance even with the large areas cut out. The candlestick is a bit more difficult to remove from the mold because it is more easily distorted than the bowl. Its many edges do give the beginner experience in cleaning off mold marks from porcelain. While in the leather-hard stage, I cut out the design areas in the fruit bowl to approximate in shape the open areas of the candleholders.

I fired the bowl and candleholders separately in the kiln and to the clay's maturing temperature. The bowl was not fired on the pedestal because its weight would cause the lower piece to sag. I watched the kiln carefully during the final firing stage and reduced heat as soon as the cone bent.

Next I sprayed clear porcelain glaze on the bowl and its base. When dry, I cleaned the bottoms with a small piece of damp Turkish toweling. They were then refired to a slightly lower temperature to mature the glaze.

This project makes a good introduction to the problems and pleasures of working with porcelain. ●



THE BOWL and its riser are glazed with a clear glaze. The candleholder has been left in the bisque. Its surface is creamy smooth and water does not penetrate its vitreous surface.



BLIND STUDENT at the potter's wheel tools the foot of his first piece of work.

TACTILE POTTERY

Is sight necessary to work with clay? Not at all. This story of teaching a blind student wheel throwing proves it.

by **HERBERT J. BURGART**

YOU THINK OF ART as something to be seen. Painting, of course, is a strictly visual medium; but what of sculpture, clay modeling, pottery? In these, the sense of touch could be as important as sight.

Blindness can have some advantages, I learned when I became an art teacher at a school for the blind. Since hands—not eyes—make pots, I decided to test my theory by teaching wheel-throwing to a blind student. An educated sense of touch could add to the creative quality of thrown pots, I thought.

A totally blind college student was selected for my first student. After presenting him with the facts regarding the possibilities and limitations of the undertaking, he accepted the challenge and our work schedule was planned.

The first meetings consisted of an orientation program to get teacher and pupil acquainted. Having had no previous art work, he had to acquaint himself with an entirely new environment. I had to learn the special problems involved in taking advantage of his capacities as well as his limitations.

Our first work sessions were spent understanding clay. The best approach for this introduction, I felt, was the making of pinch-pots—a relatively simple and naive medium containing every principle of throwing on the wheel. Being a hand-forming process, speed was not emphasized. The quality of the clay and its capabilities were thoroughly learned. The importance of exercising uniformity of thought, pressure, and concentration by the student were taught.

Next, we began an orientation with the pottery laboratory. My student became acquainted with the kick wheel, wedgeboard, and kiln. We examined bisque ware, greenware, and glazed pieces. The nomenclature of a pot was covered—in time, this knowledge would save much time and effort during instruction and giving suggestions. Fascinating to my student were the human qualities of a pot—the lip, body, neck, foot, etc., all joining to develop a metaphoric relationship to the medium.

This gradual and thorough approach to pottery

generated a great deal of excitement. By the time we had investigated the hand-forming process and become acquainted with the pottery lab and its equipment, my student and I had become fast friends. He felt quite at ease in his new environment, and I was better able to sense when I should explain a complicated idea or process in greater or less details. I was careful to cover well every procedure in this introduction, for to begin work too soon on the wheel might result in failure. To prolong the introductory work too long might result in the loss of its climactic value. Excellent rapport indicated the time was ripe to begin throwing on the kick wheel.

The next morning, we talked through the entire process. I described and explained in minute detail each step in the sequence. My student asked questions and soon felt that he had undergone the vicarious experience of throwing on the wheel. After lunch, with the timidity of the uninitiated, we entered the pottery lab, neither of us knowing whether the afternoon would spell success or failure.

After wedging the clay, he placed it on the wheel head, seated himself and kicked the wheel to life. As speed was increased we talked through the first sequence of *centering*. Elbows secure against the hips, even pressure, thumbs locked, etc., covering even the smallest detail, left nothing to be taken for granted. This process of centering, difficult for a beginner, was completed with little difficulty. As the centered clay spun with evenness and uniformity, I recalled my own first attempts at centering and mentally noted a possible advantage my student possessed. With no visual distractions, his concentration rested with the process and his tactile awareness, unencumbered, sought out unevenness and modified it accordingly.

Before actual work on each sequence we talked through the process, discussing the position of the hands, speed of the wheel, what we would strive for, etc. This "dry run" of each step lent a feeling of security which resulted in a confidence necessary to cope with success as well as with failure.

Continued on Page 33



1.



4.



2.



5.



3.



6.

7.

1. CENTERING was completed with little difficulty at this first session on the potter's wheel.
2. OPENING the piece came easily using the double thumb method on this initial approach.
3. OPENING by the sling-shot method proved to be an even better method for this tactile approach.
4. FIXING the lip was mastered after talk-throughs and after only two tries on the clay.
5. DRAWING up the walls was the most difficult step thus far, and required some modifications.
6. SPONGING absorbed excess moisture from the clay and helped orient student with shape progression.
7. TOOLING the base and foot of the leather hard pot followed another talk-through session.

This entire sequence of photos was made of the blind student's first attempt at the wheel. Photos by the author



Lamination with Enamels

by KAY KINNEY

GRANULAR ENAMELS, such as those used on copper for metal-enameling, can be quite successfully laminated between kiln-formed glass.

Adhering enamels to glass presents some problems, however, since the co-efficients of expansion and contraction between the two materials differ more than do enamels and the metals for which they are formulated. The inequality between enamel and glass may cause sections of enamel to separate from the glass. Lamination between two sheets of glass secures the enamel and prevents this separation. A crackle effect, comparable to a crackle glaze on pottery, may appear in the piece, but this in no way weakens the glass structure itself. Transparent enamels seem to produce this crackle to a greater degree than do the opaques.

Application of enamels to sheet glass parallels that of enamels to copper with two major differences: 1. Since enamels must be confined between two sheets of glass, thickness of enamels should not vary to any great extent. Too great a variation is likely to shift the upper glass blank as it bends, with the result that the two glass blanks are not aligned. 2. Organic binders, such as gum tragacanth or gum arabic, generate fumes which get trapped between the glass blanks and discolor both the enamel coating and the glass structure. A light oil, such as baby oil, makes a better binder since it has no solid matter to be consumed and fumes are greatly diminished.

I like to brush a band of oil around the edge of the lower blank, then spread the oil over the blank with the palm of my hand. (Spreading with paper or cloth removes too much oil.) This equalizes the oil without getting too much on.

APPLYING GROUND COLORS

The enamels now are sifted onto the oiled lower blank as in the usual enameling procedure, light or heavy as you wish. A contrasting border may be sifted on top of the first ground color. If a bubbled texture is desired, mica flakes can be sprinkled sparingly over the layers of enamel.

PLACING DESIGNS

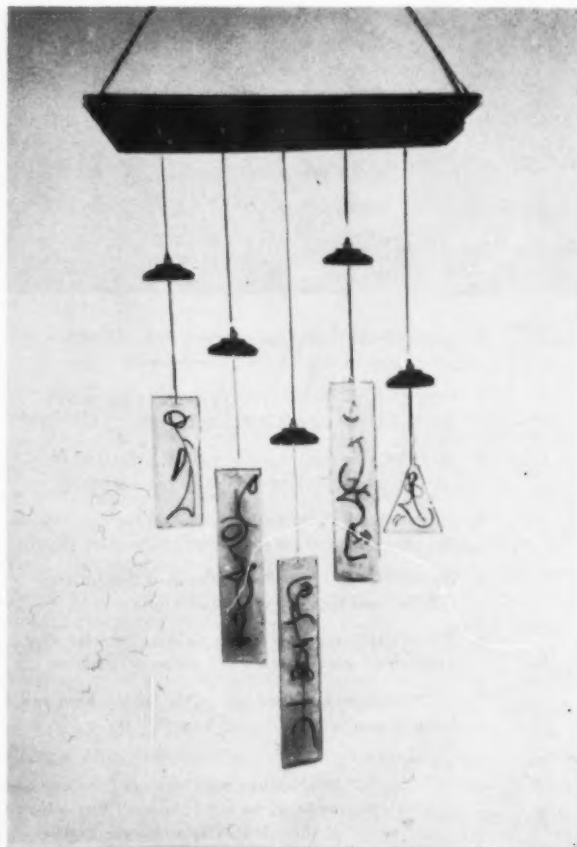
Simple designs are sifted through a small strainer onto the oil-treated lower blank as desired. For extremely small areas, an open thimble with nylon stocking mesh serving as a screen controls excessive scattering of the enamel granules. The nylon can be fastened over the top of the thimble with small elastic bands. Despite control, the granules will fall out of place to some extent, but you may remove them from areas where they are not wanted with a brush or cotton Q-tip between siftings of different colors.

Enamel designs can be masked lightly and carefully with cardboard for freedom in sifting adjoining sections.

Transparent enamels are better for emphasizing the transparency or translucency of glass, but there are occasions when the addition of opaques strengthens an otherwise indefinite design. Black applied sparingly will provide shading and delineate outlines. White is useful for backgrounds and highlighting other colors, although it diminishes the clarity of the glass. An accent of opaque red often vitalizes a weak design.

Selection of color, however, is a matter of design and your personal choice. I am just mentioning reactions of one to the other so that reasonably accurate results become predictable.

Enamels do not always retain original color—combined with glass, some shades are altered. Strong, clear greens are likely to take on a bluish cast; most pinks become rather purple; one opaque purple fires to a surprising fuchsia. For the most part, garnets, cobalt blues, and browns change little in lamination. The serious crafts-



man will run preliminary tests on each enamel he plans to use.

COMBINING WITH OTHER MATERIALS

Enamels may be combined with other decorating materials in the same laminating procedure. Silver and gold foils for enameling can be affixed to the bottom glass in the usual manner prescribed for copper enameling and followed by a light sifting of transparent enamel.

Fiberglass threads and gold or silver mica flakes may be positioned on the enamel application before placing on the top glass blank.

DECORATING OUTSIDE SURFACES

The laminated blanks may be fired on copper wire shapes for a sub-surface decoration. The copper wire is laid in the whiting-coated mold and the glass laid on top to slump into it. This type of decoration is best used with monotone enamel grounds; it might conflict with detailed enamel design.

Self-contracting gold can be applied to any glass sub-surface. Whether its use with enamels would be overdoing the ornamentation is a matter of taste and discretion.

Top surface decoration may be done with any decorating material suitable for glass surfaces. It should be added only to emphasize the enameled unit between the blanks. Metallic overglazes (gold, platinum, bronze, etc.), applied to the surface of the top blank, give depth to the glass and the enamels inside.

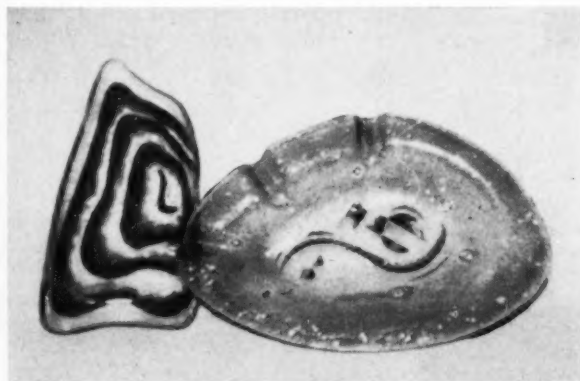
Transparent surface colorings, such as liquid glass and glass lusters, are useful in muting enamel shades for exact matching of draperies, upholstery fabrics, ceramic tile or other fixed furnishings.



THIS SERIES of articles on kiln-formed glass continues this month with Kay Kinney's step-by-step instructions on lamination with enamels. Other articles will follow.

Enamel threads, drawn from molten enamel lumps, are able to fuse to the glass surface—the firing temperature is sufficient to bring their coefficient of expansion closer to that of glass. Threads can be positioned on the top surface with glue to form designs; they are generally raised after firing. They tend to spread when laminated or overfired. Enamel “ices”—a processing similar to that of threads—may be applied to glass surfaces.

As yet, the range of obtainable colors in laminated enamels is not as extensive as that of the traditional enamels on copper. Further experimenting is necessary before a complete evaluation can be given. Certainly there are great possibilities indicated which should prove an inspiring challenge to the craftsman with an inquisitive mind. •



FREE-FORM TRAYS are decorated with laminated enamels. Black, transparent brown and transparent yellow are used in the tray on the left. The ashtray, right, has a gold and black decal on the top surface and transparent chartreuse and brown enamels laminated for the background color.

WIND CHIMES are made of double strength glass, laminating transparent brown, green and chartreuse enamels. Black enamel threads form the design on the top surface. The chimes are strung on nylon fishline from iron discs.

FAMILY TREE has glass leaves. Blue green enamel is laminated along with copper wires which extend one inch from leaves to mount in holes drilled in the driftwood “tree.” Family names are done in gold on the top surface of the laminated glass leaves.



Glaze Inlay D

by MILDRED CERNOWITZ



WORKING entirely with glazes in doing many of the decorating techniques is an exciting and rewarding experience, but it has its frustrations, too. Making a line decoration in a color contrasting to the background glaze—a technique called glaze inlay—offers a challenge to patience and skill alike. Anyone who has tried scratching through the glaze to the rigid bisque beneath knows the difficulty of controlling a line.

This technique can be simplified considerably by taking advantage of the new single-fire glazes that are available today. By the use of these glazes, the potter can apply his background glaze directly onto a greenware piece (instead of a bisque one), then easily scratch his design through the glaze to the yielding clay body beneath. An even, controlled line is the result. Next, the pot is fired to develop that first glaze, after which the second glaze is applied to the

BLACK MATT glaze is applied over lower area and a portion of neck of greenware jar.



SGRAFFITO decoration is cut before glaze is entirely dry to get a cleaner line.



AFTER being fired to develop the black glaze, the second glaze is applied to fill lines and undecorated top.



ay Decoration with zip and ease

ED GERNON SEELEY

scratched-out design portions remaining in the bisque stage. A second firing is needed to develop this second glaze.

The piece to be decorated can be of any shape, upright or flat. It should, however, be of a rather heavy wall thickness—heavily cast greenware seems to be the most satisfactory for the process of cutting a decoration into the body. The design is now planned in relation to the piece.

The best time to work on the ware is when it is past the leather-hard stage but not yet fully dry. If some moisture still remains in the clay, the sgraffito line can be cut evenly and without the chipping that so often disfigures a sgraffito decoration.

For purpose of demonstration, I chose a bottle shape and decorated it with a white inlay on a black background glaze. I covered the portions of the piece to be the background color with three coats of a brush-on,

single-fire black matt glaze.

You can make your own brush-on glaze by mixing dry-glaze powder with one of the gum solutions available for this purpose.

After this background glaze had dried enough to handle, I sketched the design on the glaze with a stylus. (You could use a pencil on a light-colored glaze.) I sgraffitoed out these lines or areas, making the portions to be filled with another glaze fairly wide. Then I let the pot dry thoroughly and fired it to the normal bisque temperature (about two cones lower than the glaze firing).

After firing, the piece resembled intaglio—partly smooth, raised glaze and partly bisque. To do the inlay, I covered the piece completely with three coats of white glaze. Since the clay is in a soft bisque state, this second glaze dries rapidly on the unglazed area. The glaze on the already-fired black glaze remains quite wet. I wiped it off easily with a fine sponge and soft cloth. When completely dry, the pot was fired to the regular glaze temperature to mature both glazes and finish the glaze inlay pot.

Various effects may be obtained by other means: Wiping off the top glaze only partially gives a muted decoration. A light coat of a third glaze sprayed over the background and decoration gives another effect. Instead of scratching out the design areas, you could mask out before the first glazing. Still another effect is achieved by leaving some portions of the pot unglazed, adding a third color to the finished pot. You may think of other ways to vary the basic effect.

Glazes that flow very little or not at all are the only satisfactory ones for this technique. The matts and satins work very well, but combinations of matts and glossy glazes that don't run too much give interesting textural results, also. On larger decorative areas that have been gouged out, the inlay glaze might be a glossy crackle with a background matt. ●

WIPING removes glaze from the previously glazed surface. Second glaze remains on bisqued areas.



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CERAMIC WORKSHOP AT MIAMI U

Val M. Cushing, assistant professor of pottery and ceramics at State University of New York College of Ceramics at Alfred, N. Y., conducted a pottery workshop for the Ceramic League of Miami, April 11-15.

Professor Cushing used lectures and demonstrations to instruct workshop participants in wheel-forming, sculpture, hand-forming, decorating, glazing, and technical aspects of glazes and clay bodies. He also gave slide lectures on historical and contemporary pottery.

In conjunction with the workshop, the University of Miami held an exhibition of Cushing's work through the month of April.

TO EXHIBIT IN LONDON

Edward and Thelma Winter, Cleveland, have been invited to exhibit in the Vitreous Enamels in Architecture Show at the Woodstock Gallery, London, England, June 13 to July 2.

Thelma will show religious enamel-on-steel panels; Edward will exhibit panels, plaques, and bowls with enamels on steel, copper, and aluminum. He is the author of the book *Enamel Art on Metals*.

They will fly over for the opening and spend two weeks in England, then visit Rotterdam, Paris, Geneva, and Vienna.

ANNUAL ARTS AND CRAFTS FESTIVAL

The *Coach House Fellowship* is sponsoring the Eleventh Annual Arts and Crafts Festival to be held on Crotched Mountain, Greenfield, New Hampshire, July 16 from 10:30 a.m. to 5:30 p.m.

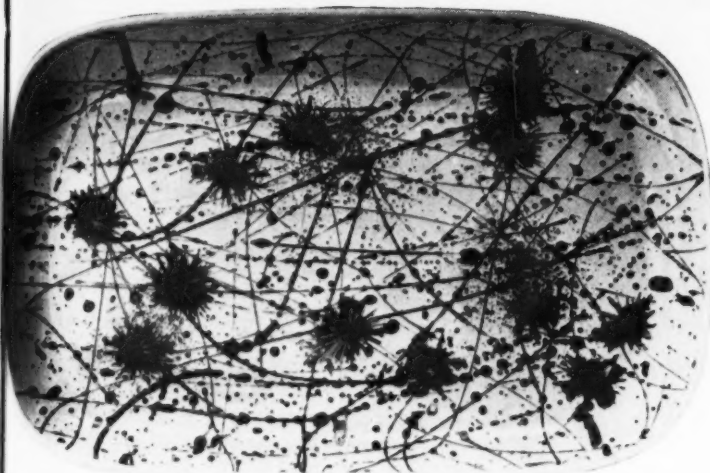


There will be exhibitions and demonstrations, such as the pottery demonstration shown here, by New England craftsmen. Craft work will also be for sale. Luncheon will be served on the terrace by the Crotched Mountain Auxiliary. *Helen G. Crathern* is director of the Coach House Fellowship.

JOSEPH YOUNG TO PITTSBURGH

Pittsylvania Ceramic Guild is humming with the news that *Joseph Young*, an outstanding mosaic muralist from California, is scheduling a lecture-demonstration at their second annual show, June 8. "Ceramics Salutes the 60's" is the theme of the Guild show to be held at the Penn Sheraton Hotel, Pittsburgh, Pa., June 8 and 9. Mrs. Everett L. Kimball, general chairman, and her co-chairman, Miss Edith Flanagan, had more than 100 exhibitors in early registration.

Continued on Page 32



TITLED "Homage to Jackson Pollock," this started as a fired, yellow-glazed platter. The overglaze decoration is blue, green, red lines; gold splashes; red, blue, gold dots.

GUIDED ACCIDENTS

by LEONEL ESTRADA

THE AMERICAN painter Jackson Pollock developed his own technique which is known as the "guided accident." Guided by his ideas I have tried since 1955 to work with the controlled accident as a means of decoration.

In other words I have tried to use "tachism" in ceramics with the thought of erasing the theoretical boundary that divides the painter from the craftsman.

How do I work? In some of my more elementary compositions I threw the color or glaze freely, sometimes from a ladder six feet high. On other occasions I used syringes, sponges, combs, brushes and wood to apply or throw the decorating materials.

I like glazes of dissimilar composition or those which give either bubbled textures or variegated colors. While spreading the colors I build up labyrinths with thick and thin lines and in this way I get a parentship of the pieces with the intricate things of nature.

Sometimes I use broad strokes of dark colors which give a dramatic look. I prefer blended textures for the backgrounds and simple designs over them. Interesting effects can be obtained by the on-glaze technique, but even more interesting by throwing the materials with syringes or sticks.

By slightly warming a glazed object and spraying glaze of another color it is possible to obtain wonderful de-

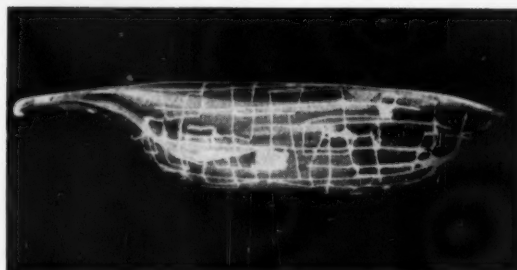
signs by means of sgraffito. Several colors can be used and the blending plus the accident give interesting appearances.

For "tachism" in ceramics inspiration can be obtained by studying Chinese characters, Oriental calligraphy, ink spots, clouds in motion, old walls, eroded rock and so on. The accident plays an important part but you must control it so that the casual shapes and textures attained keep a clear feeling of order.

Beware! It is very easy to go from the spot to the smudge. Improvise while you work and let yourself become "an alive seismograph." Movement can produce athematic, aformal and attractive designs. ●



UNDERGLAZE colors were used on these plates: "Guided accidents using brush, syringes and cotton."



COMBINATION of sgraffito and glaze decoration: brown glaze was sprayed on a warmed, yellow fired-glazed piece; then the surface was scratched through.



"TACHIST Plate" is underglaze on white bisque. The large spots are black and brick red; the smaller spots gray and black.

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Suggestions

from our readers

Index on CM Covers

CERAMICS MONTHLY has been my source of information and inspiration since 1954. As my stack of magazines grew, it became increasingly difficult to locate information I wanted. Now, when I read something that I may want to refer to again, I note it and the page number on the cover. It is no longer necessary to thumb through many magazines to find that elusive bit of information.

For glaze information, I keep a notebook in which I write the name or description of the glaze and the date and page of CM (or other source) where I can find the recipe.

—Adele Eisele, Pensacola, Fla.

Warp-Free Stemware

When making high-footed, wheel-thrown pieces, considerable warping in the base or foot frequently occurs in the firing, especially in stoneware. If the type of design requires a smooth, ungrogged surface, I add grog to the clay to be used in the foot to strengthen it. The main part of the bowl is left smooth and free for decorating, while the base is attractively textured with the grog and free from warping.

—Dorothy E. Fasig,
Ashland, Ohio

Building Paper for Throwing Bats

I have found an excellent method whereby I can throw a piece of pottery without worry about distortion due to cutting off and handling necessary to transfer the pot. I obtain stiff black building paper from a lumber yard, cut the paper from 4 inches to 10 inches square, and stick the paper with very wet clay to the wheel head. I trowel the stiff square paper down firmly with a spatula. I place my ball of clay on the square paper. Then after I have thrown my pot I use the spatula to release the four corners and transfer the piece to a flat asbestos shingle which has been halved. I keep several of these stiff squares of paper handy near my wheel and continue throwing without getting up to look for additional bats. The paper is easily removed when it is time for turning the foot of the pot. The pot has not become too dry as so often happens when left on a plaster bat.

—Agnes Erickson, Belleair, Fla.

Screenwire Cleaner

A rolled-up piece of ordinary window screenwire about 10 by 12 inches, I've found, is ideal to smooth off a plaster cast



or dry greenware. It can be rolled into a circle or the two ends rolled into the center for a double roll that gives a good hand hold.

—Goldie E. Wainner, Arvada, Colo.

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The LIVELY ART of EARTHENWARE

by KARL MARTZ

"... DO-IT-YOURSELF GLAZE STAINS"

IN RECENT ARTICLES I have given compositions for several glaze stains prepared in the studio from raw coloring oxides. These do-it-yourself stains increase one's accuracy in the control of color and they save time while weighing out a batch of glaze.

If you have a favorite glaze color that requires a blend of three or four different colorants, you can prepare a single mixed stain containing all of these colorants in exactly the desired proportions. One weighing of this custom-blended stain takes the place of the three or four separate weighings and will probably give you more uniform color from one batch to the next because the chances for error have been greatly reduced. Another appealing feature is that this is your color. Nobody else is going to buy some of the same stain. It's all yours.

Suppose a certain shade of gray calls for:

Manganese Dioxide	1.00%
Copper Oxide	.55
Iron Oxide	.20
Cobalt Oxide	.05
<hr/>	
Total colorant	1.80%

Move the decimal point two places to the right to convert each figure to a whole number in grams; weigh out the 180 grams and dry mix them thoroughly. Blend the oxides through a screen five times and then, with a mortar and pestle, hand grind them vigorously. Now, even for a small 100-gram test batch of glaze, 1.8 grams of this stain can be weighed out with much greater accuracy than would be possible trying to weigh .05 gram of cobalt oxide on the average studio balance.

Such a raw stain as this can also be used as a marking compound. Add water until it is brushable and mark test tiles with it. Mixed very thin with a lot of water it can be brushed on an unfired glaze coating as decoration. It must be quite thin because too heavy an application may cause blistering or dryness.

In the event that you would like to make a delicate blue with .05% of cobalt oxide, it is possible by using the dry dilution method. A small amount of cobalt oxide is diluted by dispersing it throughout a large amount of some non-colorant which is also included in the glaze composition. Any non-coloring material will serve the purpose provided the amount accompanying the colorant does not exceed the amount called for in the glaze batch. The most common non-colorants would probably be flint, feldspar or kaolin.

Choosing flint for this example, weigh out:

Flint	98 grams
Cobalt Oxide	2
<hr/>	
	100 grams

Dry mix thoroughly. It is essential that the mixture be absolutely uniform in composition.

Moving the decimal point two places to the left, like this:

Flint	.98 gram
Cobalt Oxide	.02
<hr/>	
	1.00 gram

shows that one gram of the mixture contains .02 gram of cobalt oxide. Therefore 2.5 grams will contain the .05 gram of cobalt oxide we set out to obtain plus 2.45 grams of flint which

should be subtracted from the amount of flint called for in the glaze composition. The proportion of colorant to non-colorant can be varied to suit the requirements of any particular situation. A blend of several colorants can be diluted in this same way. Opacifiers can be included in these stains if desired and so can commercial glaze stains or underglaze colors.

Here is one containing Zircopax:
RAW STAIN #44

Nickel Oxide	10 grams
Manganese Dioxide	20
Copper Oxide	5
Zircopax	40

In the following glaze use 7.5%. On red clay this results in a pleasant medium warm gray.

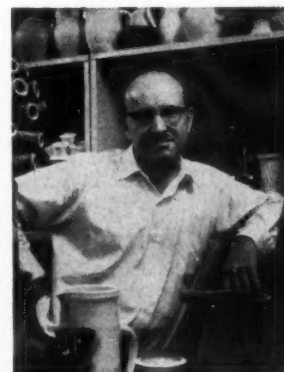
CONE 04 GLAZE TN

Ferro Frit 3134	45%
Ferro Frit 3396	15
Kaolin	25
Flint	15
<hr/>	
	100%

Pale blues produced with cobalt oxide are frequently speckled or streaked because the particles of oxide are large enough to cause speckling. To achieve a delicate blue without specks add a few drops of a strong cobalt sulfate solution to the glaze slip. Go easy, however, because more than a few drops of such an acid solution will cause the glaze slip to flocculate or gel into a pasty mass very difficult to apply.

To avoid this difficulty neutralize

Continued on Page 30



KARL MARTZ, a professor of ceramics at Indiana University presents another of his favorite techniques. This is the ninth in his series on earthenware, which started in the September issue.

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Earthenware . . .

Continued from Page 29

the sulfate with soda ash, as follows:

Precipitated colorants	Co/10	Cu/25
Cobalt Sulfate	10	—
Soda Ash	4	10
Water	500	500
Copper Sulfate	—	25

These compositions will form a precipitate in the water; very, very fine particles of cobalt or copper carbonate too small to cause specks or streaks. These will settle slowly so shake them well before adding any of the liquid to a glaze. Measure the liquid with a medicine dropper or kitchen measuring spoons or a chemist's pipette (10 cc size calibrated in tenths of a cc). Twenty drops is roughly equal to 1 cc and one teaspoon is approximately 5 cc.

Here is a glaze composition making use of these liquid suspensions of precipitated carbonates. It grew out of much interblending of other glazes and unfortunately has a cumbersome number of ingredients but I have enjoyed using it. On a white body it is reminiscent, in color, of certain pale bluish celadons or "clair-de-lune" glazes.

CONE 04 GLAZE MF

Ferro Frit 3110	37 grams
Borax	4
Cryolite	2
Feldspar	2
Lithium Carbonate	2
P.V. Clay	10
Ferro Frit 3304	13
Lead Silicate	13
Ball Clay	7
Talc	4
Flint	6
Tin Oxide	2
	102 grams

For Pale Blue add:

Co/10 5.0 cc per 102 grams of glaze

For Pale Greenish Blue add:

Co/10 2.0 cc } per 102 grams of glaze
Cu/25 1.5 cc }

This glaze is also good over underglaze colors. The tin softens the colors and adds a bit of mystery. Other soluble colorants can be used to prepare these precipitates and most of them can be used straight on an unfired glaze for brush drawing. •

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DOCTORING WARPED PIECES

COUNTLESS TIMES have I heard the sad cry—"My enamel piece is all warped! What shall I do?" Sometimes this is more of a problem than at other times, and my own how-to-fix-it carries no guarantee that it will work for you. Each time seems to be a new adventure.

There isn't much of a problem with a warped bowl or tray, so let's start with that. The basic tools you need for working with these are: Two sturdy and non-flexible spatulas or putty knives, a heat-resistant and perfectly flat surface like a marble slab, a brick, or a heavy sheet of asbestos or whatever else you can find to put the hot article on and do the doctoring. You also will need heavy, even metal weights like bench anvils or flat irons. A heavy sheet of metal larger than the article is of great help, especially if your weights are smaller than the article.

Before starting on this venture it is important that you are fully prepared for it. Before you place your work in the kiln, like a surgeon for an operation calling for scalpels, you will want putty knives and weights all in place ready to be grabbed the moment your work is out of the kiln and still hot and flexible enough to respond to treatment. It won't, if you don't act at rocket speed. Also, remember that the work must be placed on the firing rack so that it will come off easily after firing and doesn't stick to any support—there must be ample space for the putty knives to get in between to pick up the piece.

O.K. Now with all paraphernalia stationed right in place, I will show you how to fix a warped bowl or tray. Fire the bowl right side up, remove it from the kiln and take it from the rack. Put it down on the flat, heat-resistant surface and place on it a weight that is big enough to cover the rim of the piece. In case your weight isn't this large, place the heavy metal sheet—at least 18 gauge—on top of the piece and place the weight right in the center on top of it. In case you haven't acted quickly enough and the piece cooled too soon to respond and "unwarp" completely, repeat the process until it is either successful or overfired and, like the patient, is in "good shape" but dead!

Here is another method for those enamellers who are deft of hand: Take the hot enamel off the rack, place it on the flat surface, and turn it upside down with the pair of putty knives. Then place a weight on the summit of the bowl to help it regain its shape. In all these cases, the weight stays on the enameled-piece until it has completely cooled.

Another method of working for those deft-handed and daring enamellers: Fire the bowl upside down, pick it up with the two spatulas, lift it to a height of 12 inches above the flat surface, then drop it. Put the weight on it just to make sure this method works, and it really does work!

Continued on Page 34

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CeramActivities

Continued from Page 26

AMONG OUR AUTHORS

■ **Herbert J. Burgart**, director of art education, department of Fine Arts, Louisiana State University, also handles the ceramics area. He was previously art teacher at the California School for the Blind.

During the past year, Burgart has organized and directed an experimental art program at the Louisiana School for the Blind. He is also continuing work toward a Doctorate degree at Pennsylvania State University and expects to finish this work by June, 1961.

Burgart has exhibited work at state and regional shows and authored several articles concerning art for the blind.

■ **Leonel Estrada** writes from Medellin, Colombia, South America: "Although in Colombia we lack many facilities, our desire and 'inquietud' play such a part that we do not hesitate to encourage and invite every known artist that comes here to experiment and work with us on *tachism* studies. To give an example, international painters as Obergon, Botero, Roda, Arosemena have become so interested that they have done original works. . ."

■ **Phyllis Cusick** and the lamp discussed in March CM are shown here as presented in a recent feature article in her local newspaper as the hometown girl who does things in ceramics. She is one of CM's regular authors ("Working with Greenware") and a teacher of hobby ceramics.

Phyllis and her husband Bill specialize in teaching the latest hobby ceramic techniques in their Clay Corner on Detroit Road, Avon, Ohio. Phyllis gives lessons and demonstrates in a three-state area and participates in national shows. Bill applies his chemical engineering background to developing new products for hobby ceramics.

"Many people want to know the difference between a hobby ceramist and a ceramist," says Phyllis. Her definition is,



"The hobby ceramist is concerned only with finishing or decorating a cast form. The ceramist is concerned with originating the form." *Continued on Page 34*

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Tactile Pottery

Continued from Page 20

Opening the piece came easily. He attempted both the *double-thumb* and *sling-shot* methods with equal success on his initial approach. The latter opening method was employed as it gave the student a better means of realizing the depth and width of the piece as it was opened.

The lip was *fixed* after each increase in height or width. *Fixing the lip* required several talk-throughs, but after two tries, this too was mastered.

The developing shape was as a new-born babe. Great care and consideration were given according to its needs; and that sensitive relationship between pot and potter, felt by all potters, waxed strong. As the form matured, the processes of *drawing* and *choking* were undertaken.

Choking the piece, or compressing the clay, came easily, but when the first attempt at drawing up the wall was made, too large a piece was taken, requiring some modification of this important step. We decided that each progression in height would be limited in the amount drawn up, but we increased the number of draws. Although prolonging the length of time involved, this modification had two worthwhile compensations: It enabled him to better orient himself with each change in shape and allowed opportunity for necessary changes.

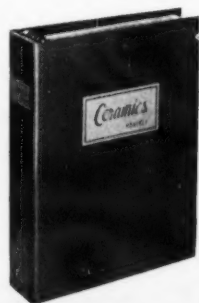
Sponging as a finishing process again allowed the student to orient himself with the progressing shape as well as serving the more functional purpose of not allowing the piece to absorb too much moisture.

Once the final shape had been decided upon, the piece was cut from the wheel head and placed on the drying shelf to await the leathery consistency necessary for *tooling*.

Tooling the base and foot followed the throwing sequence. We used the identical method for tooling as throwing, talking through each step previous to actual work.

The firing process completed the student's first creative venture in tactile pottery. This first and successful attempt at tactile pottery certainly answered a multitude of questions concerning approach, the emphasizing of the tactile sense, and taking advantage of existing capabilities.

Of equal importance with these specific answers is that general answers are also applicable to the normal-sighted potter. Throwing on the potter's wheel requires not only a knowledge of the process but a well-developed sensitivity toward clay and equipment. Even more important is the knowledge of one's own personal limitations and capabilities. •



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Enameling

Continued from Page 31

But let's go on to more troubled waters. A completely flat plaque has warped. There can be several reasons; perhaps it wasn't well-supported during the firing process, causing it to bend every which way. To reshape it is easy—reheat and place on a flat surface, right-side-up, and cover with one or more weights. Pieces might warp because the copper isn't heavy enough, because they weren't counter-enamelled, or because they were over-fired and the metal fatigued. Handle these the same as above. As I say, there is no guarantee, but who knows?

Problem: A domed plaque has buckled, caused by overfiring too-thin a copper piece with no counter enamel. Remedy: Refire, place on the flat surface, and press down the buckled section with the putty knife. This does not need the weight.

Problem: A domed plaque has gone out of shape in such a way that it won't rest level but wobbles. Remedy: Drop it down hot, convex side up and press all four sides of the piece down with the spatula using a light but firm and even touch. You will ask me now the eternal question: Will I not mar the enamel when I do all this when the piece is hot? No, you won't, if you never dig into the enamel with a corner of the spatula but use it flat! When you take a piece out of the kiln and get to doctoring it, the enamel cools off and hardens sufficiently to work on safely while still being flexible enough to be handled.

I hope that this will help you in emergencies and give you some new ideas. There are lots more to come! In a coming article I'll show you how to get new shapes out of old ones. ●

CeramActivities

Continued from Page 32

NEW CRAFTS GROUP FORMED

An organization, *Indiana Artist-Craftsman*, has been formed to promote general interest in high quality crafts. The first meeting brought out about 40 craftsmen from over the state. Temporary officers elected were: Lois Culver Long, chairman; Rosalie Reiskind, secretary; and Robert J. Webb, treasurer—all of Indianapolis.

The group will meet again in May in conjunction with the Fifth Annual Talbot Street Art Fair. Barta Hapgood Munroe is chairman of a committee to assist.

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Cones 5 and 6 Matt Glazes

by F. CARLTON BALL



Here are more glazes for those potters who fire their wares to cones 5 and 6. The three glazes in this month's column are all matts and give a wide range of color, texture depth and quality.

Nepheline Syenite	50.9%
Whiting	19.5
Zinc Oxide	2.6
Kaolin	9.0
Flint	18.0
	100.0%

In working with colorants and this glaze, I have found:

Copper carbonate, 2%, gives a strong gray-green.

Cobalt carbonate, 1/4 of 1%, is a poor strong-blue.

Manganese dioxide, 4%, gives a gray-violet.

Red iron oxide, 5%, gives a medium brown.

A tin-vanadium G.S., 5%, gives a good yellow.

Rutile, 10%, gives a light-tan color.

Copper carbonate, 2%, plus a tin-vanadium G.S., 2 1/2%, gives an excellent green.

Cobalt oxide, 1/4 of 1%, plus red iron oxide, 2 1/2%, gives a good black.

Rutile, 5%, plus cobalt oxide, 1/4 of 1%, gives a strong blue-green.

M. MATT—A dry unusual matt—very opaque with interesting pin-holed texture when applied heavily.

Feldspar	44.3%
Ball Clay	1.5
Whiting	5.6
Barium Carbonate	6.6
Zinc Oxide	19.5
Flint	16.0
Rutile	6.5
	100.0%

This base glaze is a dry eggshell white. While it gives too dry a surface for utilitarian pottery, it is very good for decorative effects. Some of these effects can be outstanding and unusual. Most of the colors that follow are hard to describe, and the names of the colors are only approximate.

Copper carbonate, 2%, gives a muddy gray-green.

Cobalt oxide, 1/4 of 1%, gives a

Continued on Page 38

N. SATIN MATT—A very dependable, somewhat translucent satin matt results from this formula. The base glaze is an eggshell color.

Zinc Oxide	2.5%
Flint	18.5
Kaolin	8.8
Feldspar	50.7
Whiting	19.5
	100.0%

For different colors with N. Satin Matt, try the following:

Copper carbonate, added at 2%, gives a good green.

Cobalt oxide, 1/4 of 1%, gives too strong a blue color—perhaps a blue Glaze Stain would be better.

Manganese dioxide, 4%, gives a strong gray-violet.

Red iron oxide, 5%, gives a good medium brown.

A tin-vanadium G.S., 5%, gives a good yellow.

Tin oxide, 7%, gives a white.

Copper carbonate, 2%, plus 3 1/2% of tin oxide, gives a strong blue-green.

Tin-vanadium G.S., 2 1/2%, plus copper carbonate, 2%, gives a good strong yellow-green.

Red iron oxide, 2 1/2%, plus tin-vanadium G.S., 2 1/2%, gives a strong mustard color.

Copper carbonate, 2%, plus manganese dioxide, 2%, gives a rich deep gray-green.

R 14 SATIN MATT—A dependable, somewhat translucent satin matt that may give an excellent crackle glaze on some clay bodies. This base glaze is nearly white and is an excellent glaze to use for the Majolica methods of decoration.

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Continued from Page 10

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OHIO, TOLEDO
May 8—June 5

Toledo Area Artists 42nd Annual Ex-
hibition, at the Toledo Museum.

OHIO, YELLOW SPRINGS
May 7—29

"Midwest Designer-Craftsmen," Smith-
sonian traveling exhibition, at Antioch
College.

PENNSYLVANIA, PITTSBURGH
June 8—9

The Pittsylvania Ceramic Guild will hold
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Room of the Penn Sheraton Hotel.
Theme: Ceramics Salutes the 60's.

PENNSYLVANIA, SCRANTON
May 1—31

"Arts of Southern California VI: Ce-
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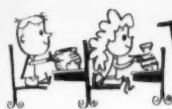
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Mold a Lesson Around Molds

by CLARK HEIPLE

MANY TEACHERS are quite sensitive to the question whether to use or not use molds in ceramic work in classrooms. Is it right? Can molds be justified? Can they be used creatively?

The answer depends entirely on how molds are used.

The use of molds can be justified if the children make the molds for themselves. Notice, I said molds. It is not necessary that they make the models, for we are teaching a principle of industrial production when we use molds.

The creative attitude towards art will not be disturbed if the teacher brings in examples of dinnerware made in molds and discusses the role of mass production in our success as a leading nation. Bring in some pottery or glass tumblers and discuss with your group the various shapes and sizes, their limitations and advantages for use as models from which to make molds. From here the children take over and do the project themselves. You, the teacher, stand by to advise and guide.

Having selected a simple small juice glass that has no undercuts, the child proceeds to soap this glass completely on the outside and bottom. He then places it top-down on a smooth hard surface such as a desk top, a sheet of glass, masonite or other such surface. He prepares a strip of oaktag paper two inches wider than the glass is tall, and long enough to go around the glass with a margin of space between the glass and the oaktag of two inches all around.

The ends of the oaktag are then taped securely to form a cylinder. The cylinder is wrapped and tied with string for reinforcement against the pressure of the plaster of Paris.

The cylinder of oaktag is now placed around the glass.

A roll of clay one-inch in diameter is placed around the outside of the oaktag cylinder and pressed down firmly. The student may put one hand inside to help support the oaktag while it is being fastened in place.

Now the plaster of Paris is mixed: Two and three-fourths pounds of plas-

ter of Paris to one quart of water. This is the proportion, but the quantity the class will need may be greater or less. A little experience will help you, the teacher, judge how much plaster should be mixed for any given project.

Let one of the more adept students mix the plaster for the whole class in a large tin can. Later, the entire container can be discarded with any leftover plaster with no harm done to the sink and drain. The plaster is ready to be poured into the mold when it becomes as thick as cream.

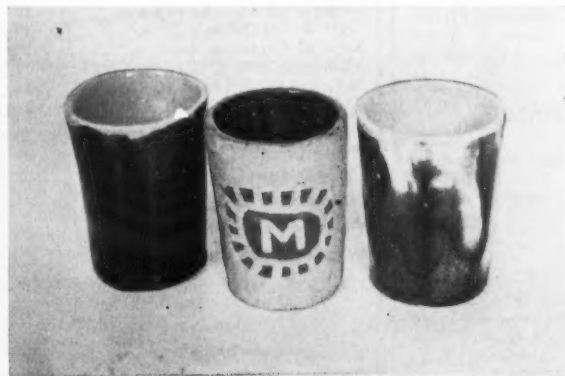
The plaster of Paris is poured slowly into the hollow area left between the sides of the glass and the oaktag, over the bottom of the glass and to the top of the cylinder. The surface upon which the mold is made should be jiggled gently to help any air bubbles in the plaster to rise to the surface.

When the plaster has stiffened, the glass used as the model in the center of the mold may be removed with a twisting motion. The mold should be set aside to dry completely—this will take several days.

The child now has the opportunity to use the mold for making a number of pottery juice tumblers by pouring in casting slip. He may decorate or personalize his cast pots with engobes or glazes. He can be encouraged to experiment by cutting a greenware casting to form other shapes—ash-trays, cut-out candleholders, brush and pencil holders, or many other forms.

After the child has had these experiences, he could carve the mold itself into simple sculptures. The mold should not be saved for next year and used with a new group of students. Each student should make his own molds.

The manner in which the teacher introduces the material and the variety of experiences that result from working with molds certainly can justify the use of molds in the classroom. ●



THREE TUMBLERS
made from the
same mold but de-
corated differently.

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Continued from Page 35

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Summer Workshops

Continued from Page 8

QUEBEC, NORTH HATLEY

June 20—August 20

Pottery Workshop offers three 3-week sessions. Instructor: Gaetan Beaudin. For information, write: Pottery Workshop, Box 181.

TENNESSEE, GATLINBURG

June 13—July 19

Pi Beta Phi School and University of Tennessee College of Home Economics. Instructors: Helen Worrall, enameling; Linn L. Phelan, pottery; Jean B. Stange, craft design; and Marian G. Heard, director of the workshop. Write: Pi Beta Phi School.

VERMONT, LUDLOW

July—August

Fletcher Farm Craft School offers four periods: July 4—15, and July 18—29, pottery; August 1—12, and August 15—26, enameling. Instructors: John Loree, pottery; Helen Worrall, enameling. Write: Ronald Slayton, Director, Fletcher Farm Craft School, Route 3, Montpelier, Vt. (before June 15); Ludlow, Vt. (after June 15).

WASHINGTON, LA CONNER

June 20—July 29

Fidalgo Allied Arts classes in ceramics, jewelry, and beginning art composition. Write: Fidalgo Allied Arts, P.O. Box 476.

WISCONSIN, MADISON

June 17—August 15

University of Wisconsin is scheduling 8-week courses in beginning and advanced ceramics. Instructor: Clyde Burt. Write: Dept. of Art and Art Education, University of Wisconsin, Madison 6.

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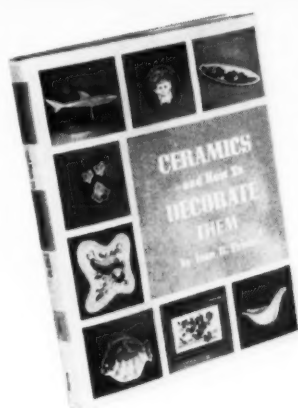
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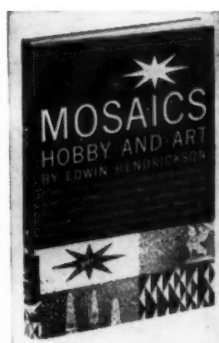
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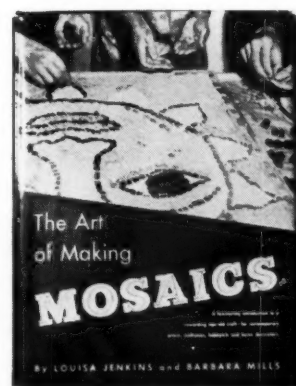


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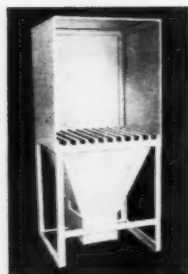
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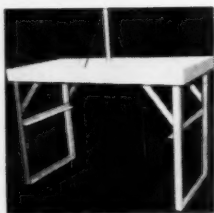
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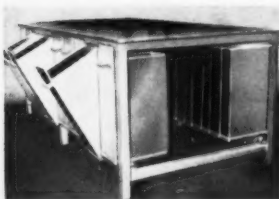
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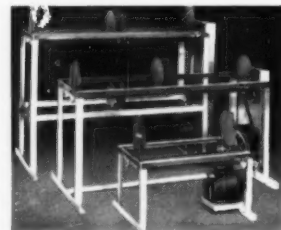
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